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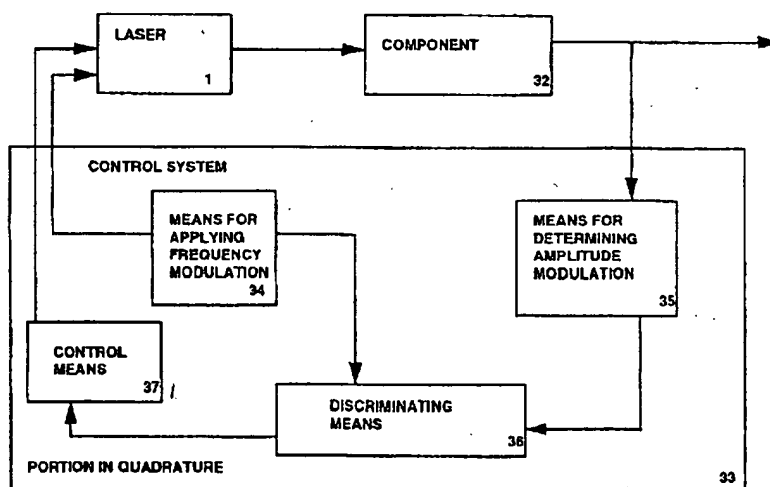
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(54) **Optical frequency control system**

(57) A control system for controlling the frequency of a laser 1 in an optical transmission system comprises means 34 for applying a frequency modulation to the laser, means 35 for determining an amplitude modulation present in the signal downstream of the laser and attributable to the frequency modulation, and means 36 for discriminating a portion of the amplitude modulation which is substantially in phase quadrature with the ap-

plied frequency modulation, and means 37 for controlling the frequency of the laser on the basis of the discriminated quadrature portion. An optical component downstream of the laser may have a response which converts FM to AM. The response and the frequency output of the laser can be locked to one another, without errors caused by unwanted AM in the transmitted signal modulation frequency.

FIGURE 4





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EUROPEAN SEARCH REPORT

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EP 97 30 7859

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 5 204 640 A (LOGAN JR RONALD T) 20 April 1993 (1993-04-20)	1-4, 8, 16, 17, 22, 23	H04B10/155 H04B10/145
Y	* column 2, line 39 - line 43 *	6, 7, 10, 11, 20	
A	* column 3, line 27 - line 48 * * column 6, line 41 - line 44 * * figures 38, 4 *	12-14, 18, 19, 21	
Y	US 5 510 922 A (NAITO TAKAO) 23 April 1996 (1996-04-23)	6, 7, 10, 11, 20	
A	* column 3, line 40 - line 52 * * column 5, line 44 - line 50 * * column 8, line 11 - line 27 * * figures 1, 13 *	12-14, 18, 19, 21	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 August 2000	Examiner Carrasco Comes, N
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons S : member of the same patent family, corresponding document</p>			

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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82